

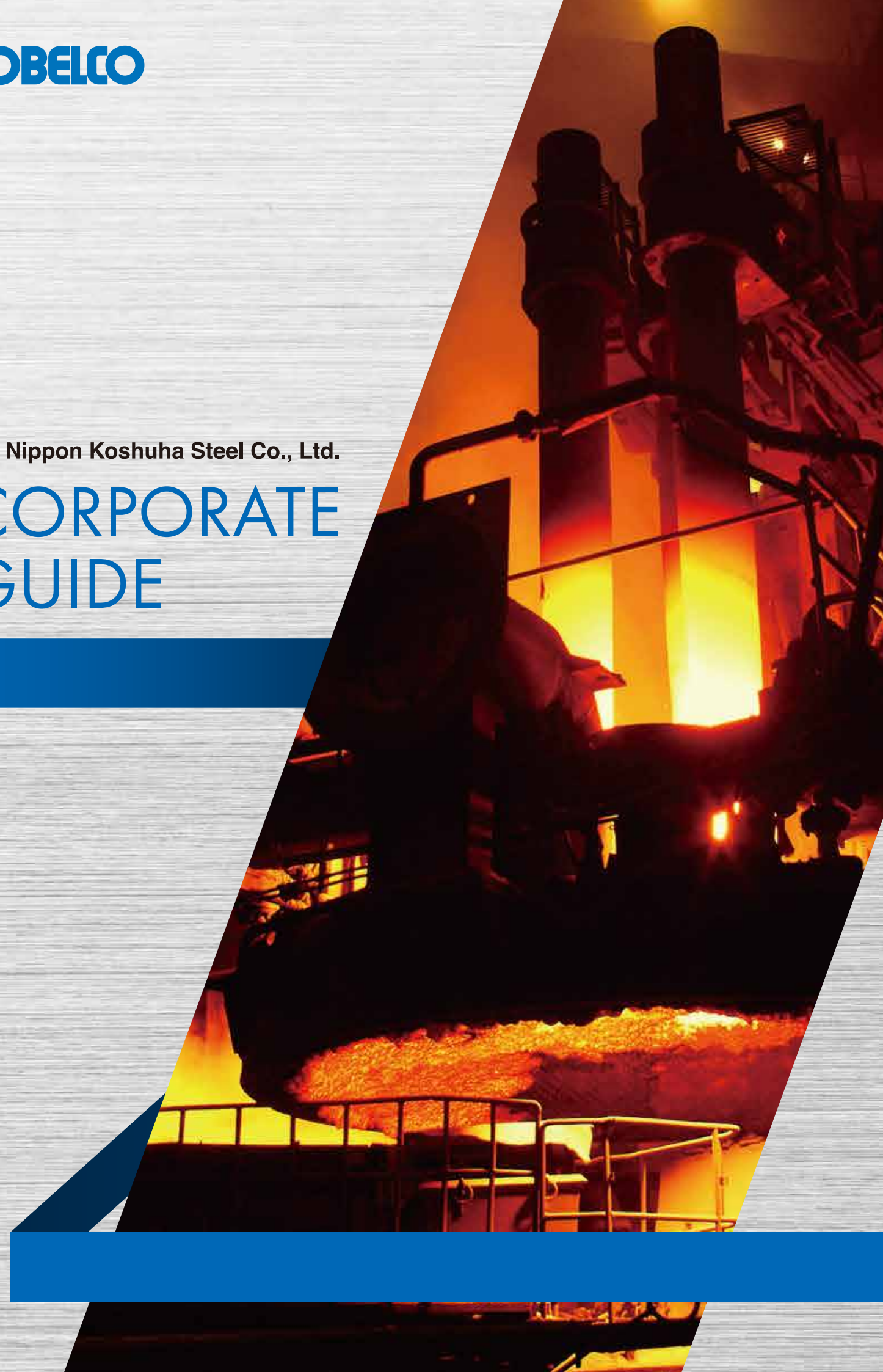
KOBELCO

 Nippon Koshuha Steel Co., Ltd.

CORPORATE GUIDE

www.koshuha.co.jp

 Nippon Koshuha Steel Co., Ltd.



An Innovative Approach to Technical Development for the Manufacture of Steel Products

The Nippon Koshuha Steel Group's high-grade product lines achieve new levels of quality

The Nippon Koshuha Steel Group is a part of the Kobe Steel Group, and comprises a number of companies producing high-grade special steels, ductile cast iron and other products. Our products are used as component parts or as manufacturing equipment, primarily in the auto and aerospace industries, the electronics industry and in industrial machinery. The supportive roles they play often go unseen by the general public, but they consistently earn top marks from our customers.

Our production activities are backed by an innovative approach to technical development that we have supported since our establishment.

Our goal is to create new value in products while developing and utilizing excellent technologies in our production activities to benefit society.

Conscious of ever-changing world and the growing sophistication of its requirements, we at Nippon Koshuha Steel Group are always ready to take on new challenges as we play our specialized role in many industrial fields.

Management Principle:

To contribute to the building of an affluent society where lifestyles are harmonized with the environment, by supplying products with wide appeal.



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Koshuha at a Glance



President Message

Meeting Complex Needs and Earning Trust

The Nippon Koshuha Steel Group has a long history in Japan as a leader in the business of specialized steels, and has worked hard to stay ahead of the competition through the development of new products and technologies. Group companies possess expertise in a broad spectrum of industrial production that includes tool steel, special alloys, bearing steel, cast iron products and distribution, all of which enjoy high customer acclaim. It goes without saying that upholding the overall strength of a Group such as this takes both passion — a passion for our business, passed on through the generations — and the combined input of each of our employees. In order to continue meeting the ever more sophisticated needs of customers amid changes in the economic environment, the Nippon Koshuha Steel Group concentrates its resources in selected fields. Through an ongoing shift to higher value-added product areas, we will further boost our technical competitiveness while continuing to strengthen our corporate position.

Specialized steel products are fundamental to so many industries, and our role as a major supplier is likely to grow even more important in the future.

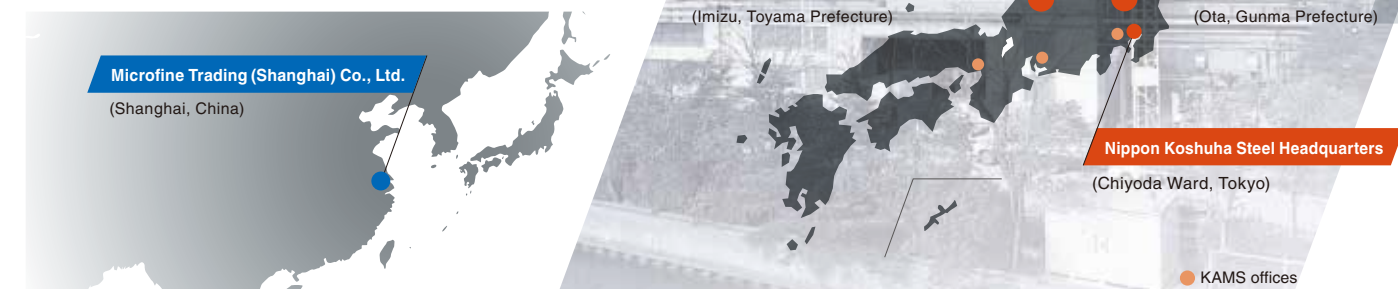
Our approach will always be focused on working in harmony, and developing together with individuals, communities and the global environment. Through our wide-ranging business operations, we at the Nippon Koshuha Steel Group aspire to play our part as good corporate citizens and retain the trust of society at large.

Daisuke Ogura
President,
Nippon Koshuha Steel Co., Ltd.

We have an integrated system that includes development, manufacturing and sales in the special steel business and the cast iron business.

The Nippon Koshuha Steel Group has established a structure that enables us to fulfill diverse needs in the special steel business and the cast iron business. The special steel business is the mainstay business of the Group. Nippon Koshuha Steel Co., Ltd. develops, manufactures and sells such products as steel wire/wire rod/bar, forged products and processed products and items for forged products. To deliver these products upon request, KAMS is responsible for consistent steel machining, heat treating, surface treatment and physical distribution.

In the cast iron business, Koshuha Foundry manufactures stable quality cast iron products that are essentially required in the automotive and machine fields.



Special Steels

Nippon Koshuha Steel Co., Ltd. Toyama Works

Koshuha All Metal Services
(KAMS) Co., Ltd.

Casting

Koshuha Foundry Co., Ltd.



The world of special steels becomes broader and more diverse.

History of our production activities

As a pioneer in the special steels industry, Nippon Koshuha Steel has accumulated a long history.

We remain committed to creative practices for production activities to satisfy the needs of the times and expand special steels.

Around 1945
Phantom ice pick
 Following World War II, we created a prototype for an ice pick for mountain climbing from the special steels that had been used to make the wheel supports of the Zero fighter aircraft. The graceful design with high-grade materials and excellent quality were praised among mountaineers, but did not result in mass production, which is why it is referred to as the "phantom ice pick."

1969
Miniature bearings led the Apollo spacecraft to the moon
 When the U.S. Apollo 11 spacecraft landed on the moon, miniature bearings manufactured from our SM3 steel wire were used in the craft's gyroscope and were widely discussed as one of the few made-in-Japan products.




1988

Share of microfine tool steel brand expanded.

We uniquely developed a manufacturing process for reducing tool steel's impurities and non-metallic inclusion, achieving high toughness and homogenization. The process was applied to our microfine tool steel, which was referred to as the ideal tool steel, and dramatically boosted our reputation.



1995

KD11S, cold work tool steel, developed.

- **2001** KDA1S, steel for die-casting molds, developed.
- **2003** Two thousand, five hundred-ton oil-hydraulic forging press upgraded to 3,000-ton press.



- **2011** -KD11MAX, cold work tool steel, developed. -GHX and JHX, steel for high-grade plastic dies, developed.

- **2015** KDAHP1, steel for hot-stamping dies, developed.

- **2017** Size of 3,000-ton oil-hydraulic press manipulator increased.

- **2008** Machaon Coat KS-G, die surface treatment film, collaboratively developed.



- **2009** NOGA, cold work tool steel for high tensile molding, collaboratively developed.



Tool steel

1961

One thousand-ton water-hydraulic press relocated from Nagoya Plant of Kobe Steel, Ltd.

1975

Two thousand, five hundred-ton oil-hydraulic press installed.

1990

One thousand, five hundred-ton high-speed oil-hydraulic forging press installed.

Stainless steel and special alloys

1963

Manufacture of SM3, martensite stainless bearing steel, started.

1980

SMX70, martensite stainless steel for corrosion-resistant bearing, collaboratively developed with a client.

1986

Nippon Koshuha Steel starts accepting orders for high-strength wire, nickel alloy wire, titanium wire and special alloy wire for welding.

1981

New vacuum induction furnace (VIF) installed.



2002



Nippon Koshuha Steel improves the three combined machines' systems and advances into the field of stainless drawing bar steel.

2003

Second plant for special alloy wire constructed.

2006

Third plant for special alloy wire constructed.

2013



Vacuum ark re-melting (VAR) furnace newly installed.

VAR takes place in a vacuum and involves re-melting the steel ingots previously melted in the electric furnace or induction furnace. A facility for manufacturing cleaner steel ingots was introduced.

Bearing steel

1941

Mass production of bearing steel started.

1984

NK ring, a small-diameter hollow part, developed.



1981

NK coiler developed and operated.

1990



Fully automated, new plant for steel wire started running.

2000

Rights pertaining to the business of bearing steel materials (excluding bearing steel forgings) transferred to Kobe Steel, Ltd.

2013

An eastern plant for steel wire finishing and drawing newly established.

History of operations of Nippon Koshuha Steel and Group companies



1934

High-frequency electric shock refining method invented.

The high-frequency electric shock refining method uses high-frequency electric current to instantaneously reduce the iron oxide in iron ore. This made it possible to use powdered iron ore as a raw material in blast furnaces for the first time. Our company name is derived from this refining method.

1936

Nippon Koshuha Heavy Industry Co., Ltd. founded.

1950

Nippon Koshuha Steel Co., Ltd. founded.

1952

Listed on the Tokyo and Osaka stock exchanges.

1955

Kobe Steel Ltd. invests in Nippon Koshuha Steel Co., Ltd.

1968

Forty-ton electric arc furnace installed.



1983

Wire rod-finishing block mill (made by FRIEDRICH KOCKS GmbH & Co KG) installed.



1981

Koshuha Foundry Co., Ltd. founded.

1993

Bangkok Office established.

2001

- KAMS Co., Ltd. founded. - Koshuha Precision Co., Ltd. founded.

2011

Microfine Trading (Shanghai) Co., Ltd. founded in Shanghai, China.

2019

Replacement of the blooming line completed.

2023

Businesses of Koshuha Precision transferred to KAMS.

Offering new value to society
with unique technologies

Strengths of Nippon Koshuha Steel

Nippon Koshuha Steel's biggest strength lies in the high-quality special steels products manufactured on the consistent line that is streamlined with technologies accumulated over many years throughout the process, from steelmaking to secondary processing. We will keep trying to create reliable products in a variety of fields and expand the potential for special steels.



Strength 1. Technologies accumulated since our founding

As a specialist in special steels, we have accumulated advanced technologies over many years, which we utilize to meet the needs of customers as they become increasingly sophisticated and diversified. We keep updated on customers' requests in terms of material properties, usage and others and hold repeated discussions and analyses from all perspectives to offer optimal solutions.

Example

Machaon Coat KS-G made it possible to prolong the service life of dies for automotive high-tensile materials.



High-tensile steel plates, integral to automotive body materials, are very hard and could severely damage press dies. With abundant experience in steel for press dies, we developed Machaon Coat KS-G, technology that forms hard film on the die surface, in collaboration with KAMS Co., Ltd., a Kobe Steel, Ltd. Group company, which engages in the distribution of dies. An optimal combination of steel for dies and surface treatment has made it possible to stabilize the quality of products and prolong their service life. Therefore, Machaon Coat KS-G is highly regarded by automotive part manufacturers. In this way, we demonstrate great strength in our capability to apply and propose optimal technologies in accordance with customers' requests.

Technology for
Solution

Strength 2. Streamlined and consistent manufacturing line

Toyama Works has over 80 years of history and is the hub for our production activities. The process of making steel from its raw materials, the forging and rolling processes for forming products and the secondary processing for making final products, such as wire and rods, are centralized here. We utilize our sophisticated production technologies and know-how to build a streamlined and consistent manufacturing line. Improvements to our flexible and resilient production system are underway, compatible with manufacturing many different types of steel, small lot production and others.

Steelmaking process



Electric arc furnace

Forging and rolling



3,000-ton press

Rolling

Secondary processing



Large lathe

Continuous wire-drawing mill

Wide Application

Special steels

Tool steel, special alloys,
bearing steel and other

Electronics

Aerospace

Automobiles

Energy and
nuclear
power

Medical
devices

Industrial
machinery

Everyday
goods

Strength

3. Our products are used in many different fields

They are manufactured using our sophisticated technologies as well as our streamlined and consistent manufacturing lines. They extensively serve in advanced fields, such as automobiles, aerospace, electronics and healthcare, as well as in and near our everyday lives.

Manufacturing System



Special Steels

Operations

With High-grade Production Technologies and Strict Quality Control, We Create the Finest of High-grade Special Steels

Special steels are at the core of the Koshuha Group's business operations. Using advanced technical expertise acquired over many decades of experience, we produce high-quality special steels through a thoroughly integrated manufacturing system that includes steelmaking, forging, rolling, machining and heat treatment.

We manufacture a wide range of steel types, including tool steel, special alloys and bearing steel, which we can supply in such forms as forgings, wire rod and bar material for use in many different applications. In addition, our heat-resistant and stainless steel products, which require extremely specialized characteristics, are used extensively in such advanced fields as the automotive and electronics industries.

In manufacturing these special steels, we begin by melting and refining our raw materials to remove impurities and achieve the desired chemical composition and quality. We then cast the steel into ingots, which are subsequently forged or bloomed into products of various shapes and sizes.

Materials

- Tool steel
 - Hot work tool steel
 - Cold work tool steel
 - High speed steel
 - Steel for plastic
 - Carbon steel for machine structural use, alloy steel and others
- Special alloy
 - Stainless steel
 - Heat-resistant steel
 - Nickel alloy and others
- Bearing steel

Forms

- Steel wire
- Wire rods
- Drawing steel bars
- Rolled wire rods
- Rolled rectangular rods
- Forged products
- Processed products



Melting Electric arc furnace

Base ingredients of return steel and alloy iron are melted at high temperature to adjust material composition.



Melting Vacuum ark re-melting (VAR) furnace

Repeat melting, reduce impurities and manufacture liquid steel consisting of delicate solidification structure.



Refining Ladle refining facility (ASEA-SKF)

Refined steel is produced using refining technology that was developed for bearing steel.



Ingot-making Ingot casting facility

Refined molten steel is poured into molds to form ingots.



Forging 3000-ton press

Ingots are forged to create high quality forged steel products.



Blooming Blooming mill

Ingots are heated and rolled to form billets, round bars and flat bars.

Melting/refining

Ingot making

Forging

Blooming

Rolling

Heat treatment/machining

**Cold working/
heat treatment/pickling**

Inspection

Shipping

Production Flow Chart
for Special Steels

Special Steels

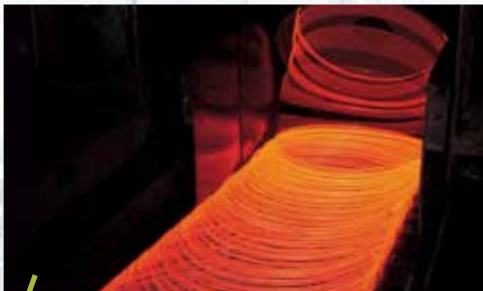
Operations

Our Integrated Manufacturing System Consists of All Process up to the Final Shape for Products such as Steel Wire, Wire Rods, Bars and Forged Products

The integrated manufacturing system at our Toyama Works performs secondary processing on our special steels.

We use blooming mills, bar, wire and plate rolling mills to manufacture products in many different shapes. When rolling wire rod, we use a three-roll block mill (made by FRIEDRICH KOCKS GmbH & Co KG), the first of its Kind to be used in a finish rolling line in Japan. This enables us to produce wire rod with excellent dimensional precision.

The processed products are then heat treated in our continuous wire-rod annealing furnace, vacuum furnace, bright annealing furnace and other facilities. Our pickling and washing lines incorporate both in-line and batch-type equipment that allow us to achieve appropriate surface conditions during processing. Finally, we use analyzers, ultrasonic flaw detectors and other advanced equipment to ensure product quality before shipment to customers.



Rolling Rolling mill

Used to process billet into wire rod and bar material.



Rolling Wire-rod finish rolling in 3 direction

3-rolls block mill provides superior wire rods with dimensional precision



Cold working Continuous wire drawing

The rolled wire rod is drawn into steel wire.



Machining Large lathe

Remove impurities or scales from the surface and finish a product to the specified size.

Nippon Koshuha Steel Co., Ltd.
Toyama Works (Imizu, Toyama Prefecture)
ISO9001, ISO14001 certified

[Main Facilities]

| Division | Facilities |
|-------------------------|--|
| Steelmaking | 40-ton and 10-ton electric arc furnaces, ex-furnace refining equipment (ASEA-SKF), vacuum decarburization equipment (VOD), 3-ton high-frequency induction furnaces, 2-ton and 0.3-ton vacuum induction furnaces, 3-ton and 1-ton electro slag remelting (ESR) furnaces and 7-ton and 3-ton vacuum arc remelting (VAR) furnaces |
| Forging | 3,000-ton, 1,500-ton and 1,000-ton high-speed oil-hydraulic presses |
| Rolling | Ingot casting facility (double shifting reverse mill) Medium and small-sized rolling mills with diameters of $\phi 110$ - $\phi 12.5$ Wire rod block mill with a diameter of $\phi 12$ - $\phi 5.5$ |
| Wire rod processing | NK coiler (continuous wire-drawing mill with automatic flaw removal), continuous wire-drawing mill, single-head wire-drawing, wire-rod planer and pickling equipment |
| Bar-material processing | Combined machine, bar straightener and bar planer |
| Machining | BTA-type drill, automatic honing machine, CNC lathe and machining center |
| Heat treatment | Continuous wire-rod annealing furnace, continuous bar annealing furnace and vacuum annealing furnace |
| Inspection | Analyzer, material testing equipment and ultrasonic flaw detector |

Toyama Works



Heat treatment Batch-type, hydrogen-atmosphere annealing furnace

The furnace atmosphere is carefully controlled to produce wire rod with superb surface quality.



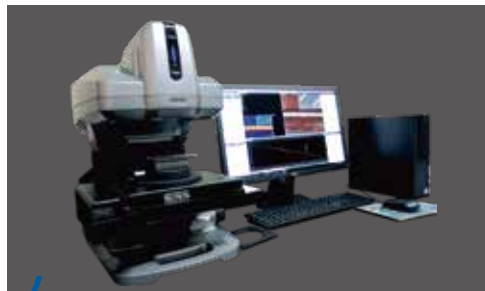
Pickling Special pickling facilities

The pickling process removes any oxides attached to the sides of the wire rod and forms a protective film.



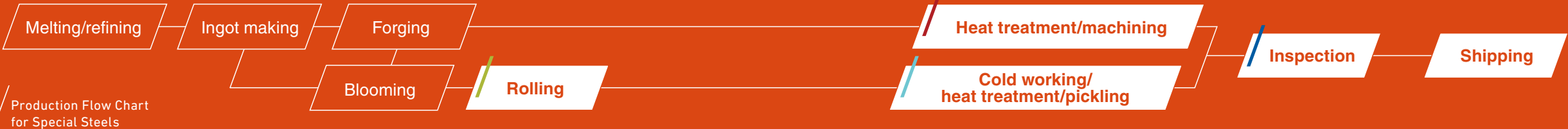
Inspection Atomic absorption photometer

Products are shipped after their chemical content has been analyzed to verified high quality.



Inspection 3D shape measuring device

The non-contact device can measure shapes and roughness and is used for purposes such as determining the depth of a flaw on the surface of a material.



Special Steels

Products / Special Alloys

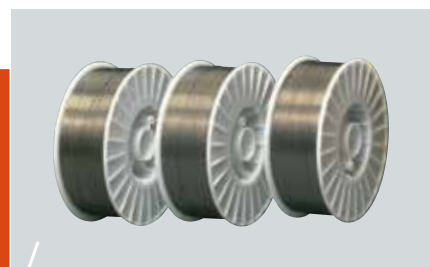
Our Special Alloys Are Manufactured Using Koshuha's Proprietary Technologies and Used for a Wide Range of Applications

Special alloys are used in many fields ranging from everyday household goods to electronics and aerospace equipment. Koshuha manufactures many high-performance alloy materials, including steel wire made from rolled wire rod, polished bar material.

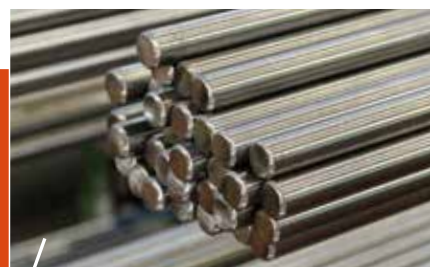
High-performance materials with a variety of specialized characteristics are in high demand, particularly in cutting-edge fields where technology is rapidly evolving.

To answer this need, our production system can quickly and effectively handle small-lot orders for highly specialized products, with an integrated approach that extends from a melting process that utilizes exclusive constituent design through extrusion, pressing and machining.

Product examples



Steel wire



Drawing steel bars



Wire rod

Applications

Automobile



Our materials for automotive parts satisfy requirements for high resistance to corrosion and heat.



Heat-resistant bolts



Piston rings

Electronics



We manufacture material for hard disk drive parts that must feature outstanding corrosion resistance and machinability.

Consumer electronics

Our lead wire materials for electronic parts help prolong the service life of household appliances and electronic equipment and also reduce power consumption.



Energy

Our high performance welding materials feature the low-temperature toughness, corrosion resistance and strength necessary for welding LNG tanks.



Daily necessities



Our titanium material is used to make glasses frames that are lightweight and corrosion-resistant, and remain beautiful even after years of use.

Nuclear power generation

We also produce welding materials with exceptionally high corrosion resistance that are used in such specialized applications as nuclear power plants.

Special Steels

Products / Tool Steel

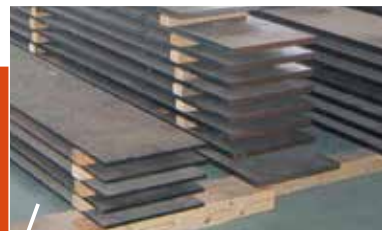
The High Quality of Nippon Koshuha Steel's Tool Steel Greatly Contributes to Improvements in the Production Efficiency of its Users

Tool steel is extensively used to make metal molds and tools for processing materials such as iron, non-ferrous materials and plastic into many different shapes. Making metal molds and machining tools more durable requires tool steel to be heat-resistant, wear-resistant and tough. To meet these requirements, our tool steel is manufactured with carefully-selected materials and our unique technologies in component design, tempering, heat treatment and other practices. The products made with Nippon Koshuha Steel's comprehensive technologies are referred to as microfine steel and are highly regarded by many users.

Product examples



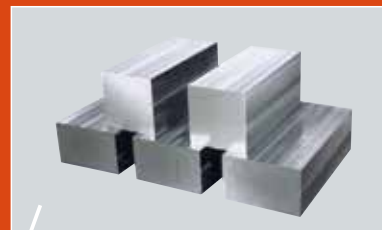
Rolled wire rods



Rolled horizontal angle



Forged round bar



Forged square bar

Processed products



Container tires



Stems



Step shaft

Applications

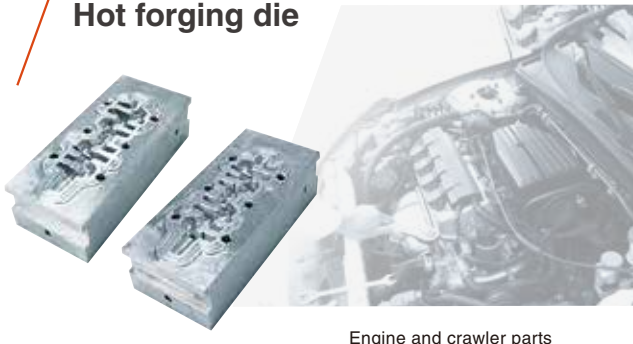
Dies and tools are used in a broad range of environments and require many different properties, such as heat resistance, abrasion resistance and toughness.

Press die



Automobiles

Hot forging die



Engine and crawler parts

Cutting tools



End mills, drills, hobs, broaches and other cutting tools

Dies for extruding aluminum



Extruded products (window sash)

Forming rolls



Pipeline

Plastic molding dies



Car interior

Industrial machines

Sluice

Special Steels

Products /
Machining, Heat Treatment,
Surface Treatment

With Ample Steel Material Stocks and
State-of-the-Art Facilities,
We Offer Fully Integrated Services Ranging from
Machining to Heat Treatment and Surface Treatment

When satisfying customers' requests in a timely manner, the distribution function is increasingly important. KAMS has a consistent system to meet many different needs that encompass Nippon Koshuha Steel's stock, sales and delivery of microfine steel as well as machining, heat treatment and surface treatment. We are abundantly stocked and have excellent functions and a network of business locations across the country, which ensure security and speed in our service.

Machining We have a full line-up of equipment for various types of processing.



NC milling machine



Multitasking machine



Vertical machining center

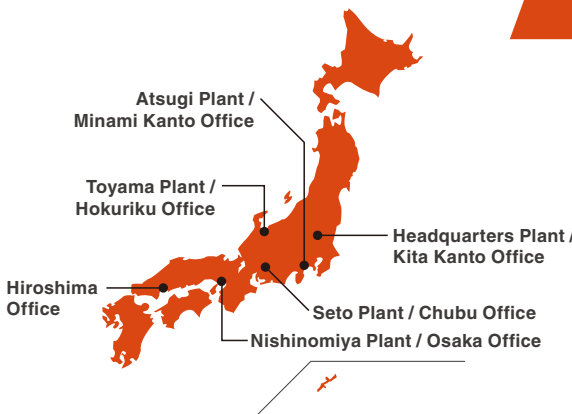


Horizontal machining center

Koshuha All Metal Service (KAMS) Co., Ltd.

[Main Facilities]

| Location | Machining | Heat Treatment | Surface Treatment |
|--------------------|---|---|---|
| Headquarters Plant | vertical milling machine, duplex milling machine, NC milling machine, flat-surface grinder, vertical machining center, horizontal machining center, multitasking machine, ultra-hard-blade bandsaw, bandsaw | vacuum quenching furnace, vacuum tempering furnace, vacuum nitriding furnace, sub-zero facility | — |
| Atsugi Plant | — | vacuum quenching furnace, atmosphere quenching furnace, tempering furnace, sub-zero facility | — |
| Seto Plant | — | vacuum quenching furnace, quenching oil tank, atmosphere tempering furnace, vacuum tempering furnace, atmosphere tempering furnace, cleaning tank | PVD equipment for hard film coating, radical nitriding equipment, vacuum degasser |
| Nishinomiya Plant | bandsaw | — | — |
| Toyama Plant | vertical milling machine, NC milling machine, duplex milling machine, vertical machining center, NC lathe, bandsaw | — | — |



Cutting

A 1300 mm bandsaw is used to meet requests for large size products.



Heat Treatment vacuum quenching furnace

With expertise acquired through research and development, we control dimensional changes during heat treatment to ensure high product quality.

Surface treatment

We handle different problems with dies using Machaon Coat KS-G, the surface treatment technology developed by the Kobe Steel Group.



Die has undergone surface treatment.



Surface treatment system

Casting

Operations and Products

Reliably Meeting Society's Needs by Contributing to Industrial Advancement

Cast products are forged products that comprise important components of automobiles, construction machinery, and industrial machinery, among others. Focusing on ductile cast iron, which bases on knowhow accumulated over many years through small-lot high-mix production experience, Koshuha Foundry manufactures a wide variety of products ranging from ordinary and special alloy cast iron to equipment used in casting plants.

We have a green sand casting plant, self-hardening casting plant and consistent production system, which allows the entire process from the manufacturing of small- to large-sized cores to the finishing and coating of casts to be completed within a plant. We will keep satisfying customers' needs in terms of quality assurance and lead time.

Areas of demand

- Auto industry
- Construction machinery
- Industrial machinery
- Civil engineering and construction
- Machine tools
- Semiconductor-related devices

Materials

- FC150~300
- FCD400~800
- FCAD900~1200
- ENDURE 900
- Alloy castings



Melting High-frequency induction furnace

Pig iron and scrap are melted at high temperature to supply molten steel of consistent quality via a holding furnace.

Koshuha Foundry Co., Ltd.

(Hachinohe, Aomori Prefecture) ISO9001, ISO14001 certified

[Main Facilities]

| Division | Facilities | Division | Facilities |
|--------------------|--|---------------------------|---|
| Melting | 5-ton high-frequency induction furnace 10-ton mid-frequency induction furnace 6-ton low-frequency induction furnaces 20-ton low-frequency induction holding furnace | Sand processing | 3 mixers; pre-processing equipment Sand regeneration device |
| Molding | FCMX automatic molding line KDM automatic molding line Self-hardening fran resin molding line | Product processing | CNC barinder grinder Shot blaster Car bottom heat treatment furnace Machining equipment |
| Core making | Cold box automatic core-making machine Shell automatic core-making machine Self-hardening automatic sand core-making machine | Testing, etc. | Emission spectrophotometer Magnetic particle and ultra-sound testing equipment 3D measuring equipment CAD system |



KDM automatic molding line

The high-strength, high-precision molds with double squeeze molding help to achieve a near net shape.



Self-hardening fran resin molding line

This line molds products up to a maximum of 4 tons in weight and can also handle ENDURE 900 and other types of alloy cast iron.



Koshuha Foundry Co., Ltd.



Automobiles

Vehicle parts

With high vibration damping performance, the parts contribute to the prevention of vibrations and noise. We also make components that contain special alloys to increase heat resistance.



Construction machinery

Oil-hydraulic equipment parts

We supply cast parts that are easily machinable as well as very strong and durable.



Industrial machinery

Parts for injection molding equipment and robots

Complex shapes can be fabricated in one piece and partial thickness reduction and rib reinforcement can help to make the machines lighter in weight.



Gate Pecker



The Gate Pecker casting gate separator was developed to meet the needs of casters. It uses ultra-high-pressure hydraulics to make light work of gate breaking and is designed for easy use and maintenance.

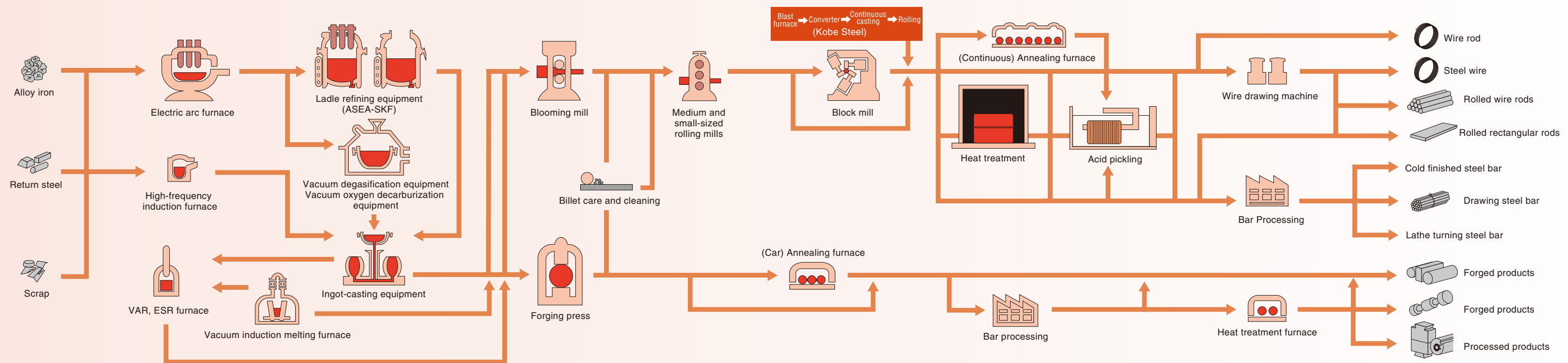
Manufacturing Process

"Koshuha" literally means high frequency. What exactly is "high-frequency steel"?

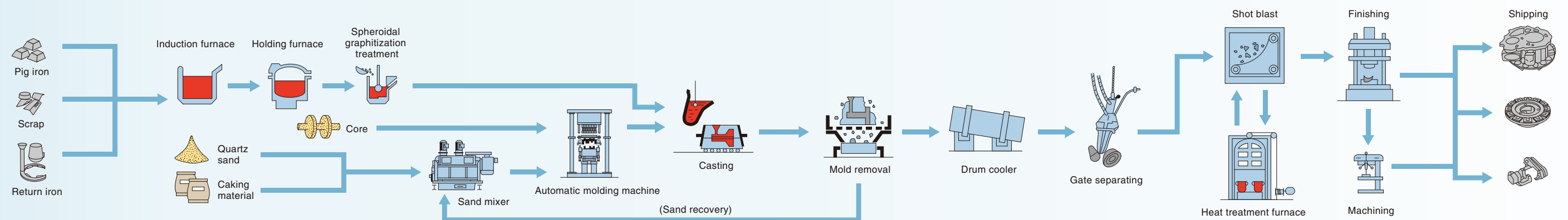
In 1934, Hideyuki Kikuchi, who worked at the Central Testing Institute of the South Manchurian Railway Company, invented a steelmaking method called 'high-frequency electric shock refining'. This prompted the 1936 founding of our company's forerunner, Nippon Koshuha Heavy Industries.

The high-frequency electric shock refining method uses high-frequency electric current to instantaneously reduce the iron oxide in iron ore. The introduction of this method made it possible for the first time to use powdered iron ore as a raw material in blast furnaces, thereby contributing greatly to broadening the demand for special steels.

Special steels and alloys



Castings



Research and Development

We Develop Attractive Types of Steel Based on our Comprehensive Technological Strengths, Combining our Element Technologies and the Manufacturing Technologies that Represent our Steelmaking, Forging and Rolling.

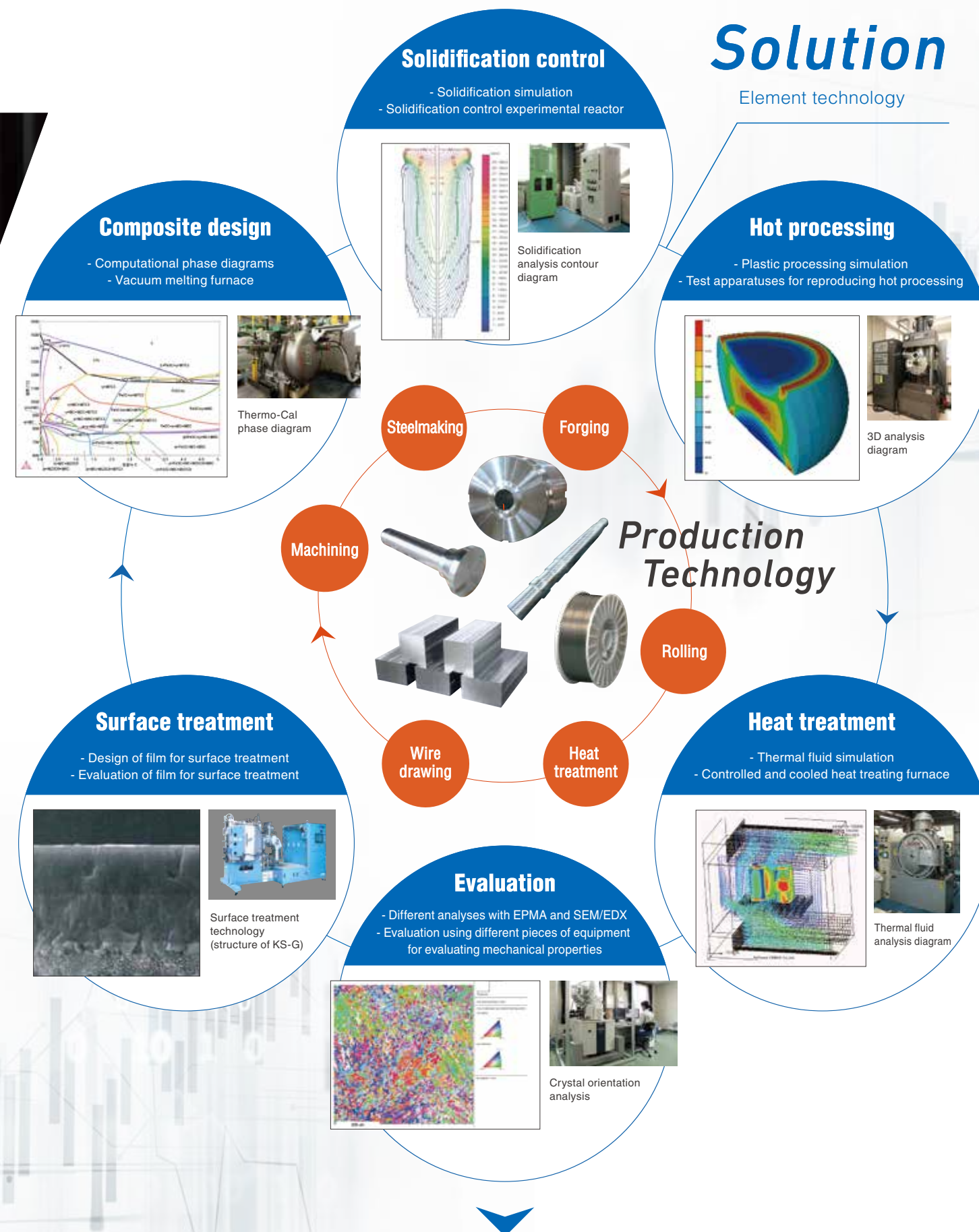
To meet all needs in special steels, Nippon Koshuha Steel Co., Ltd. has engaged in comprehensive research and development, from the design of new steel types to steelmaking, forging, rolling, casting and precision processing. In the field of special steels, we build on our accumulated metallurgy technologies in repeated efforts to maintain a superior level of quality, such as developments that include composite design simulation for new types of steel and heat treatment experimentation, among others.

For the development of future-oriented products, we pursue innovations and skill improvement for our researchers through project research with universities and public agencies as well as collaborative research and personnel and technological exchange with Kobe Steel, Ltd.

This high-level research and development provides the foundation for the high-performance and high value-added products that we manufacture.

Solution

Element technology



Special steels field

Our research and development activities in this field use both element technology and production technology to satisfy needs and develop attractive steel types.

Four Themes for Sustainability Management

We will contribute to the formation of a prosperous and comfortable society by focusing on the implementation of these four themes.

1 Solving social issues



By supplying products, we will support our customers' sustainability management to solve social issues.

| | |
|---------------------------|--|
| Weight reduction | High-strength mold tool steel and mold surface treatment (e.g., automobile and railway vehicles) Supports the reduction of vehicle weight for the realization of eco-friendly vehicles. |
| Extending life | Heat-resistant/corrosion-resistant special alloys (e.g., automobile, electronic information, semiconductors) Supports the long life of components and contributes to vehicle and machine production that is free of failure or waste. |
| Greater durability | Components for construction machinery Supports greater durability for harsh usage environments to help construct buildings, factory buildings and other infrastructure. |

2 Contribution to communities



Without the understanding of community members, we cannot run a business. We contribute to local communities by holding and sponsoring events.

Community Relations

Because we believe that meeting our social responsibilities is an important requirement of corporate management, we expect all of our employees to strictly follow company rules and policies. We strive to maintain good relations with local communities by keeping the areas around our plants clean and neat, participating in local volunteer activities, and otherwise contributing to local communities in our role as a good corporate citizen.

Our main activities

Taking part in the Imizu-shi Adopt Program

Having joined the Adopt Program activity in 2002, we carry out cleaning activities. In 2022, the Governor of Toyama commended us as a contributor to the prefecture's landscape beautification promotion of the year, recognizing our contribution to the beautification of the regional environment.



Opening the Koshuha Community Center to the public

The exercise room, training room and study room of Koshuha Community Center, located in Toyama Works, are open to the public as well as employees. Aiming to deepen people's understanding about our corporate activities, we proactively allow plant visits.



Organizing plant visits

As part of its contribution to local communities, Toyama Works proactively allows plant visits mainly by high school students. By seeing the special steels manufacturing line, visitors deepen their understanding about Nippon Koshuha Steel, as Toyama Works strives to familiarize local residents with us.



3 Prosperous Coexistence with the Global Environment



To preserve the limited resources of the earth, we will ensure eco-friendly manufacturing by employing appropriate materials and manufacturing methods.

Environmental Policy

As a member of a global society, we are aware of the importance of the environment and will make tireless efforts to conserve, protect and improve it, becoming an eco-friendly company that balances its social roles and business activities.

- 1. Living in harmony with society:**
Proactively participate in the environmental conservation activities of local communities.
- 2. Increased environmental awareness:**
Educate employees and enhance their environmental awareness.
- 3. Reduction of environmental load:**
Inspect corporate activities regarding the ways of conserving the environment, protecting resources and recycling to reduce environmental load.
- 4. Strictly obey laws:**
Obey environment-related laws, environmental conservation agreements, and other laws and agreements.
- 5. Environmental improvement activities:**
Set concrete objectives and goals, continuously engage in improvement activities and review them on a regular basis.

For the Realization of a Recycling Society

We support the realization of a recycling society through manufacturing using scrap metal as a raw material. We produce high added value products from materials such as scrap iron, stainless steel and batteries. In addition, we are promoting the recycling of metal dust and brick scrap generated at manufacturing sites.

Development of Eco-friendly Mechanisms

We will push forward with environmental measures in light of the needs of the community while promoting manufacturing with less waste focusing on recycling.

Examples of initiatives that are environmentally consciousness

- Reducing fuel consumption through heat recovery and the reduction of the weight of refractories.
- Manufacturing without waste by improving yield.
- Replacing plant lighting with LEDs and ending the use of paper for administrative tasks
- Complying with laws and regulations related to air and water quality to prevent environmental pollution

Commitment to Disaster Control

Encouragement of disaster preparedness, emergency drills, and other activities are consistently performed in a proactive effort to prevent accidents and minimize damage that would result from a disaster.

Firefighting and emergency life-saving training

Our employees regularly learn how to use fire extinguishers and report a fire to the fire station. They also observe a water discharge exercise performed by the fire brigade. Toyama Works also invites instructors from the fire station and regularly organizes an emergency life-saving exercise using AED.



Emergency drill

In accordance with our basic policy on safety, health, the environment, and anti-disaster activities, Toyama Works annually organizes three emergency drills. By repeating drills and exercises, we address problems and endeavor to raise awareness about disaster control.



Organizing a comprehensive fire drill with the fire station

In cooperation with the local fire station, Toyama Works regularly organizes a comprehensive fire drill in which the employees receive training on dialing 119 to report a fire and initial firefighting and also learn how to fight a fire from the fire brigade.



Four Themes for Sustainability Management

4 Pursuit of Governance



Corporate Governance

Placing importance on shareholders' profits with the aim to enhance our corporate value, we strive to strengthen and streamline our management function and build a management system that can quickly adapt to changes in our business environment. Also, we strive to become a corporate group that is trusted by society by improving our compliance system and our commitment to environmental issues. The following is the basic policy concerning our corporate governance.

1. Secure profits and equality among shareholders

We will respect shareholders' rights, secure equality among shareholders, and strive to ensure that they can easily and properly exercise their rights.

2. Appropriately cooperate with all stakeholders

In compliance with the Koshuha Group's Corporate Code of Ethics, we will continue to cooperate with all stakeholders (customers, suppliers, employees, and the local community) in a healthy and appropriate manner.

3. Correctly disclose information and secure transparency

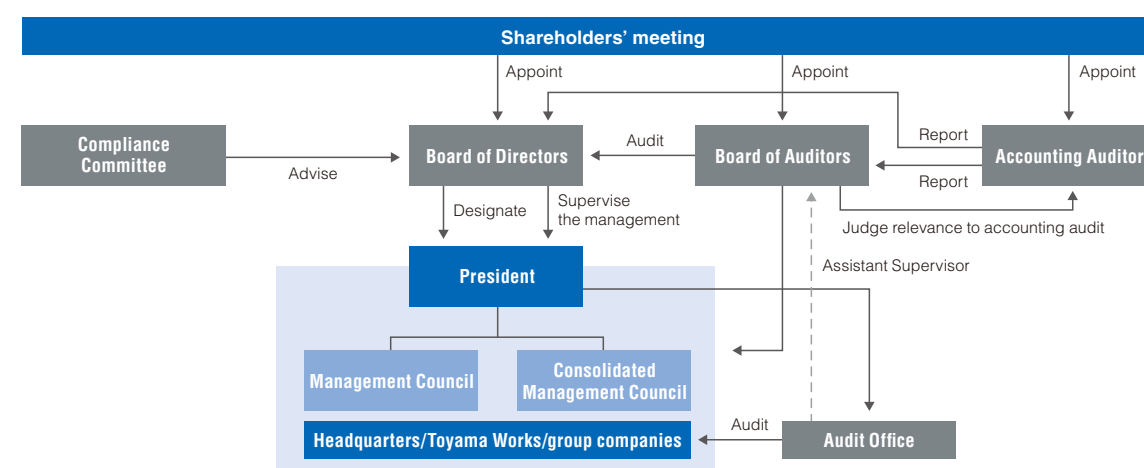
We will correctly disclose information in compliance with laws and may also voluntarily send information not required by the laws to secure transparency.

4. Responsibilities of the Board of Directors

People who are familiar with our operations lead the Board to swiftly make decisions. Monitored and supervised by our outside directors and auditors, the Board is encouraged to transparently and impartially make decisions and properly fulfill its roles and responsibilities.

5. Dialogs with shareholders

Aiming to ensure our long-term, consistent growth, we maintain constructive dialogs with shareholders.



Commitment to Compliance

KOBELCO Group's shared corporate philosophy

KOBELCO's View of the Future

Our view of a society and future to be attained as we carry out KOBELCO's mission

We envision a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives.

KOBELCO's Mission

Our mission and the social significance of the KOBELCO Group that we must fulfill

Our mission is to provide solutions to the needs of society, by making the best use of the talents of our employees and our technologies.

Core Values of KOBELCO

The commitments of the KOBELCO Group to society and the values shared by the entire KOBELCO Group

1. We provide technologies, products and services that win the trust and confidence of our customers we serve and the society in which we live.
2. We value, and support the growth of, each employee on an individual basis, while creating a cooperative and harmonious environment.
3. Through continuous and innovative changes, we create new values for the society of which we are a member.

Six Pledges of KOBELCO

Code of Conduct for all Group employees to follow to fulfill the Core Values of KOBELCO and the Quality Charter

1. Uphold the Highest Sense of Ethics and Professionalism
2. Contribute to the Society by Providing Superior Products and Services
3. Establish a Comfortable but Challenging Work Environment
4. Live in Harmony with the Local Community
5. Contribute to a Sustainable Environment
6. Respect Each Stakeholder

Quality Charter

Quality Charter

The KOBELCO Group will comply with all laws, public standards, and customer specifications, and make continuous efforts to improve quality, with the goal of providing Trusted Quality in our products and services.

Because we believe that meeting our social responsibilities is an important requirement of corporate management, we obey laws and respond to social needs.

Nippon Koshuha Steel and its affiliated companies usually identify specific risks concerning compliance issues in such fields as quality, the environment and intellectual property, and endeavor to prevent the manifestation of risks by formulating and operating the necessary in-company rules and implementing training programs and internal audits. In addition, as a forum for monitoring these activities, the Group conference body meets every six months.

Mainly consisting of outside board directors, the Compliance Committee meets whenever needed to give advice regarding internal and external actions to be taken in the event that a serious compliance violation has occurred or is suspected within the Group.

There is an inquiry counter accepting consultations on compliance and harassment within departments. We also have a whistle-blowing system that allows employees to talk to an outside attorney as their first point of contact. The intent of these measures is to enable the Group to take appropriate actions and protect both people consulting the inquiry counter and whistle-blowers.



Four Themes for Sustainability Management

Nippon Koshuha Steel encourages diversity both in terms of ways of working and human resources. As the low birthrate, aging population and globalization progress, Nippon Koshuha Steel accommodates the diverse values of its employees and secures human resources from diverse backgrounds.

Facilitating Diverse Ways of Working

Nippon Koshuha Steel has introduced a range of systems which are effectively used to enable employees to continue to work while achieving a good balance between work and home according to their life stage. To reform workstyles, we have worked to reduce long working hours, proactively use online conferences and encourage employees to take more paid annual leave.

Employee benefit program

- Flexible working hours
- Welfare leave
- Half-day off
- Childcare and nursing care leave
- Telecommuting

Securing and retaining diverse human resources

Facilitating women's career pursuits

In the regular recruitment of sogoshoku (regular position with the prospect of promotion), Nippon Koshuha Steel proactively employs women in its workforce with the aim of facilitating women's career pursuits. We will employ more women by expanding job categories.

Employing people with disabilities

At Nippon Koshuha Steel, people with disabilities engage in similar jobs as their non-disabled colleagues and greatly contribute to our corporate activities. In recruiting people with disabilities, we consider their individual characteristics and try to find the right workplace for each person to maximize their potential, aiming to ensure that people with disabilities are not assigned to the wrong workplace.

Employment of the older population

Job searching for the older population is a common issue that our society must solve, as the average lifetime is approaching one hundred years. In addition, the cultivated skills and techniques of the older population should be handed down to next generation, which is the key to the future corporate growth of Nippon Koshuha Steel.

Nippon Koshuha Steel introduced its system of reemployment in 2005. Since then, the system has been repeatedly revised in compliance with the legal system. We have improved the working conditions for older employees to systematically enable them to find their jobs worthwhile.

Human Resources Development

The biggest resource supporting the growth of Nippon Koshuha Steel is our people. Nippon Koshuha Steel regards human resource development as the core of its management strategy and one of the most important challenges on which the entire company should focus. Structurally, our human resource development consists of two pillars, namely OJT and OFF-JT.

OJT

In OJT, new employees are sent to the workplaces where they are assigned and engage in their jobs while their superiors and seniors systematically impart the necessary knowledge and skills to their subordinates and juniors in communicating with each other. Particularly at manufacturing sites, passing skills down to young employees is required and OJT effectively serves that purpose.

OFF-JT

In OFF-JT, new employees undergo an intensive grade-based training program away from their workplaces created by an internal organization or external educational institute and acquire the necessary knowledge and skills leveraging e-learning and other training methods. Additionally, we try to improve specialized education for different job types in accordance with the increased need for greater expertise.



New employees' training



Business skill workshop

Welfare Program

Nippon Koshuha Steel improves its welfare program for its employees to maximize their abilities. This aims to balance the employees' mental and physical condition and motivate them to enhance productivity.

Welfare program

- Commendation for long service
- Trip recognizing long service
- Company dormitories and housing
- Property accumulation savings
- Housing loans
- Defined-benefit corporate pension scheme

Other

- Community center
- Contract recreation facilities available nationwide



Softball meet



Bachelors' dormitory

